NORTH DEVON INFIRMARY.

A CASE OF INJURY TO THE ABDOMEN AND LEFT LUNG; FREQUENT ASPIRATIONS, WITH SUBSEQUENT RECOVERY; REMARKS.

(Under the care of Mr. JOHN R. HARPER.)

WE are pleased to place on record the account of the following case of severe abdominal injury. The patient was closely and skilfully watched and judiciously treated, and the description forms a useful addition to the few cases of the kind satisfactorily described in our literature. With regard to the diagnosis Mr. Harper was of opinion that the spleen was ruptured by the blow; the injury was directly over that organ, and, in addition, the amount of shock appears to have been considerable and the pain great. It is possible that there was a small rupture of the spleen, but it is more probable, we think, that the large collection which required to be tapped only twelve days after admission was retro-peritoneal and due to a rupture of the kidney. The blood which escapes in consequence of a rupture of the normal spleen passes through the thin capsule into the peritoneal cavity, where it may occasionally be limited by adhesions, and thus produce a swelling similar to that described. A case was under the care of Mr. Morgan[1] for rupture of the spleen and the patient died twelve days after the injury; the blood around the spleen had undergone but slight change, although it was localised by adhesions. The presence of urea in the fluid removed is of importance as confirmatory of this view. The absence of hæmaturia is at first sight against it, but this is not always present under such circumstances, for the laceration may be deep enough to cause considerable extravasation of blood, but as it has not extended into the pelvis of the kidney no blood escapes in the urine. The complication of effusion into the pleura is not uncommon after severe injuries to the upper part of the abdomen.

On Oct. 6th, 1894, when playing football, a man aged twenty-four whilst running was struck with great force in the upper and left side of his abdomen by an opponent's head. He was knocked down by the force of the blow and had to be carried off the ground to the pavilion, where he was examined by a medical man, but beyond marked tenderness in the left hypochondrium nothing abnormal could be detected. He had no fractured rib as far as could be made out; his pulse was good, but he complained of feeling a little faint; his pain soon passed off. He was advised to desist from playing, though, contrary to advice, he joined in the start of the second half, but soon had to retire. He afterwards drove back with the rest of the team to the hotel, and had partly dressed himself when he was taken suddenly with very acute pain in the abdomen; he fainted and was laid upon a bed, and medical assistance was sent for. He was found lying on the bed in great pain, his face pallid and covered with a cold sweat. His pulse was feeble and easily compressed. He localised all his pain below the ribs on the left side, where the full force of the blow had been spent; it was paroxysmal in character, the relief between the attacks being slight. He was very restless, yawning and throwing his arms about. He retched continually and once spat up a little frothy mucus tinged with blood. The abdomen was kept very tense, and pressure caused great pain. The pain was to some extent relieved by hot fomentations and turpentine. An opium pill (1 gr.) was given him. After an hour he rallied sufficiently to be moved carefully in a cab to the North Devon Infirmary. On admission he was at once put to bed, hot-water bottles were applied to his feet, and an injection of morphia was given. Laudanum applied on hot flannels was also ordered. The urine was drawn off by catheter; it contained no blood and was normal. His pulse had much improved and was now about 90. He himself felt better and almost free from pain. His abdomen could now be examined more carefully. There was an ill-defined fulness seen in the left side below the costal margins; some slight evidence of bruising was evident. The breathing was mainly thoracic. Palpation was rendered difficult owing to the rigidity of the abdominal muscles. There was very marked tenderness below the rib margins on the left side; percussion in this situation gave a dull note over an area about two inches wide and about three in depth. It appeared to be due to an increase downwards in the area of splenic dulness. No fractured rib could be made out. He was given ice to suck and was kept under the influence of morphia. On one occasion after swallowing a teaspoonful of ice-cold water an intense pain was produced in his left side; it lasted a few minutes. On the following morning he appeared to be much the same, had had a fairly good night, and had been sick once, the vomited matter simply being bilious in character and containing no blood. He said he felt much better. The temperature was 100° F. and the pulse 96. The local condition was much the same—viz., extreme tenderness on pressure over the dull area, rigidity of the muscles was still marked, and there was some tympanites, with diminution of liver dulness. He was kept on a milk diet. For the next few days there was not much alteration in him. Locally there were all the signs of localised peritonitis; the dulness in the left side was increasing downwards and forwards, and no fluctuation could be made out. His general condition was better, but the tympanites caused him some discomfort, which was not relieved by enemata. The temperature varied from 100° to 101·5°. On Oct. 12th fluid was detected in the left pleura, reaching in front to the lower border of the third rib and behind to the spine of the scapula. The cardiac impulse was displaced slightly inwards. His breathing was a little quickened, and he complained of being "tight on his chest." The temperature was 102·5°. The pleural cavity was aspirated at the angle of the scapula, and about sixteen ounces of very deeply blood-stained fluid were withdrawn. The abdominal swelling had been gradually increasing in size, but it was not till Oct. 16th that well-defined fluctuation could be made out. He still had considerable pain on pressure over the swelling. His pleura had filled to the level of the fourth rib. His general condition began to get worse; his tongue was coated, the breathing embarrassed—about 36 to the minute—and the temperature 102°. On Oct. 18th he was put under chloroform and examined. There was a distinct fluid swelling in the left hypochondrium, reaching from directly below the rib margin forward to the right of the median line, and extending down on a level with the umbilicus and across the left side of the abdomen. The whole area was uniformly dull, the dulness merging into that of the pleura, so that there was a dull area reaching from the fourth rib to the level of the umbilicus. His discomfort was so great that it was thought wise to aspirate the abdominal swelling, and the site chosen was two inches below the ribs and one inch behind the nipple line. About seventy-seven ounces of fluid were removed; the sac was not emptied, and a bandage was applied round his waist. The fluid was dark-green in colour and of a fairly thick consistence, with an alkaline reaction, sp. gr. 1011, and contained albumen in considerable quantities; there was a small quantity of urea (1 per cent.). The colour was due to altered blood pigment, chiefly methæmoglobin. Bile pigment and salts were tested for, with a negative result. Microscopically, masses of blood pigment could be seen; there were no definite crystals of hæmatoidin, but a few well-defined tyrosin crystals. On examination the following day the swelling was found to be nearly as large as previously to the tapping, but as yet there was no distension, which had made him so uncomfortable. He was in no pain. On Oct. 20th the pleura was aspirated, and forty-six ounces were removed, only slightly stained with blood. On the 23rd the fluid swelling was increasing, and abdominal distension very marked; he was in pain and very uncomfortable. The temperature was 102·5° and the pulse 110. The face was pale and haggard. The cavity was aspirated close to the former site, and sixty ounces of fluid of a specific gravity of 1010 and of a similar colour to the former were withdrawn. On Nov. 1st the fluid in the pleura, not having diminished, was aspirated; this time twenty-four ounces of clear serum were obtained. On the following day the abdominal cavity, which had again refilled, was aspirated, the quantity this time being 100 oz., of sp. gr. 1007 and not quite so dark a green colour. A good stout binder was applied. The swelling gradually increased till on Nov. 11th it had to be again relieved. Sixty-four ounces of a similar character were removed. After this date he required no further operative interference. He was put upon ten grains of diuretin every four hours for a few days, at first with apparent benefit, as in the first twenty-four hours he passed 115 oz. of urine. The fluid left in the pleura began to be slowly absorbed, and the abdominal cyst did not refill. His general health rapidly improved, so that by the end of the first week in December he was allowed to get up. On Dec. 21st he went home. His general

[1] Guy's Hospital Reports, 1844, p. 487.

health was excellent. There was a little thickening of the pleura at the left base and some slight displacement of the cardiac impulse inwards was evident; otherwise the chest was normal. A well-defined swelling could be felt below the rib margin for about two inches, which was dull on percussion, but no fluctuation could be obtained. On Jan. 22nd, 1895, he reported himself by letter as being in excellent health and stated that he had no trouble or inconvenience whatever from his side. On March 23rd he was seen by Mr. Penny, house surgeon. He was then at work and in good health, but had "a lump in his side."

Remarks by Mr. HARPER.—I have thought it best to report this case rather fully, as I have been unable to discover any case resembling it. Rupture of the spleen is in so many instances followed by rapid death that it seems to be advisable to put on record any in which recovery has taken place. In this case, fortunately, the associated lesions were not very grave; the one complication—probably a slight rupture on the surface of the lung into the pleura, which set up a certain irritation and was followed by effusion of serous fluid—was the only one to contend with. The injury to the spleen could not have been very extensive and could not have extended beyond the capsule of the organ. The hæmorrhage appears to have been confined to within the capsule, which must have been gradually distended. The character of the fluid removed from the abdominal swelling is interesting from the fact of its containing tyrosin crystals. Quain, in his recent edition of the "Dictionary of Medicine," says: "Tyrosin is present in small amount normally in the spleen." The resulting lesions seem to have been due to the effect of contusion rather than fracture of the rib, as no evidence of the latter could be made out. From the abdomen 302 oz. of fluid were removed, and from the pleura eighty-nine ounces.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Carcinoma of Ureter.—Congenital Obliteration of Bile duct.—Sarcoma of Breast.—Carcinoma of Bed of Thumbnail.—Carcinoma of Stomach.—Duodenal Ulcers in Women.—Cirrhosis of Liver in Child.—Secondary Intra thoracic Sarcoma.—Exhibition of Specimens.

AN ordinary meeting of this society was held on April 2nd, Dr. PAVY, President, being in the chair.

Dr. VOELCKER related a case of Primary Carcinoma of the Ureter. The specimen was obtained from a man aged sixty-eight who was admitted into the Middlesex Hospital under the care of Dr. Cayley on Dec. 7th, 1894. He had never been laid up except in 1892, when he had influenza. Four months before admission he noticed a discolouration of his urine. On admission he was a well-built man with œdema of the left ankle. He complained of pain across the loins and of nausea, and was unable to take solid food. The liver was enlarged, nodular, and tender, and there was a resistance to be felt in the left iliac fossa. The urine was acid and contained a blood-clot. A fortnight after admission there was considerable hæmaturia and the patient had lost 18 lb. in weight in the last three months. The prominent symptom was pain over the liver; the liver was enlarged considerably, but the blood disappeared from the urine. Towards the end there was rapid loss of weight, 14 lb. being lost in as many days. The patient died on Jan. 20th, 1895. At the necropsy the body was fairly nourished; there was marked œdema of the left leg, and to a less degree of the right leg also. There was slight jaundice. The pericardium was adherent. Hypertrophy of the left ventricle was noticed and atheroma of the aorta was also present. The liver weighed 8 lb. 14 oz. and was much enlarged. The left lobe was almost replaced by soft pale new growth, and numerous nodules of similar growth were present in the right lobe. The nodules were not umbilicated. The gall-bladder was natural. The right kidney was natural; the left was only about one-third the size of the right and showed hydronephrosis. The left ureter was dilated. The lower two inches of the ureter were the seat of a new growth which formed delicate villous processes projecting into the ureter, and were blood-stained. The bladder was quite free from growth, but a small blood-clot projected into it from the left ureter. The lumbar glands on the left side were infiltrated with growth and also the pelvic glands near the lower end of the ureter. There was a small nodule of growth in the upper lobe of the right lung. Microscopical examination of the growth in the ureter showed a typical papillo-carcinoma (villous cancer) of the ureter. The growths in the liver showed a similar structure. The epithelial cells were strikingly pyriform. No similar specimen had been recorded in the Transactions of the Pathological Society, and he had been unable to find any reference to a similar case either at home or abroad. Dr. Murchison[1] recorded a case of villous tumours in the pelves of each kidney associated with similar growths in the bladder around the orifices of each ureter. The structure of the growth was similar to that presented by a villous carcinoma of the bladder. The reasons for regarding the growth in the ureter as primary were the structure of the growth and of the deposits in the liver, the infiltration of the lymphatic glands on the left side of the aorta, the absence of any infiltration of the ureter from outside, the history of hæmaturia, and the presence of œdema in the left foot. The infiltration of the liver was unusual, for malignant disease of the bladder was rarely followed by secondary deposits in the liver. The small size of the left kidney might possibly be due to long-standing hydronephrosis induced by some injury to the lower end of the left ureter, possibly by a calculus lodging there, and at that situation a new growth developed later.—Mr. TARGETT regarded the specimen as a rare and interesting one. Villous growths in the bladder were not common, but were very malignant, and the secondary deposits strikingly resembled the primary growth. In one case of secondary growths in the lung, the villous processes were infolded and covered with epithelium precisely like that of the bladder. Secondary growths in the ureter were not uncommon; they might penetrate the tube from outside and either ascend or descend along it.—Mr. BOWLBY said that the bladder near the lower end of the ureter was a usual site for these tumours, the epithelium at the lowermost end of the ureter being of the vesical type.—Dr. VOELCKER, in reply, said that the growth did not commence at the lip of the ureter, for nothing could be seen of the growth from the interior of the bladder. The secondary growths were like those described by Mr. Targett.

Dr. FRANCIS HAWKINS (Reading) exhibited a specimen showing Congenital Obliteration of the Ductus Communis Choledochus. This duct was obliterated and appeared as a mere thread about one inch before joining the duodenum. The hepatic and cystic ducts were pervious, as was also the ductus communis choledochus for nearly an inch before becoming obliterated. The gall-bladder was not enlarged and was empty. The liver was enlarged, very firm, and of a dark olive-green colour, with fibrous bands running over the surface, which was slightly irregular. The blood-vessels were normal. The pancreatic duct was pervious and the opening into the duodenum was seen. Microscopical examination on section of the liver showed it to be cirrhotic. There was a right inguinal hernia containing the cæcum and appendix. There was also a small localised empyema at the left pulmonary base. The specimen was removed from a male child aged at death four months and two weeks, who was admitted into the Royal Berkshire Hospital suffering from jaundice, which had first been noticed eight days after birth. The jaundice was of a deep olive colour and the stools were white. Hæmorrhage from the mouth occurred on two occasions and epistaxis once. The family history was not important. Only two similar cases had been shown before the society, and from a diagrammatic representation of the local condition of obliteration of the bile-ducts made by Dr. John Thomson of Edinburgh it would appear that, including the two cases above mentioned, only six were recorded in medical literature where the ductus communis choledochus was alone obstructed. The cause of the jaundice was thought to be due to the change in the liver itself owing to the bile-ducts becoming constricted and obliterated. The cystic and hepatic ducts were pervious, and yet contained no bile.

Mr. J. JACKSON CLARKE described the histology of a Lobulated Growth of the Breast removed by Mr. Edmund Owen from a middle-aged woman. It was a typical alveolar sarcoma free from ulceration. Most of the cells of the tumour contained intranuclear bodies which were not found

[1] Transactions of the Pathological Society, vol. xxi.